

Application No. 10/869,033  
Amendment dated December 15, 2005  
Reply to Office Action of June 29, 2005

Docket No. CM06376J

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:**

1. (currently amended) An audio accessory optimization system, comprising:  
a radio; and  
an audio accessory coupled to the radio, the audio accessory including an embedded memory, the embedded memory containing ~~information~~ audio optimization parameters to enable the radio to optimize the accessory audio performance, wherein the audio optimization parameters include at least one of: audio interface type, number of audio modes and signaling configuration, duplex capability, and receiver to transmitter transducer coupling parameters.
2. (original) The audio accessory optimization system of claim 1, wherein the radio is a portable radio.
3. (original) The audio accessory optimization system of claim 1, wherein the radio is a mobile radio.
4. (original) The audio accessory optimization system of claim 1, wherein the information contained in the embedded memory is organized in a hierarchical fashion.
5. (original) The audio accessory optimization system of claim 1, wherein the information contained in the embedded memory is used to create an encrypted digital signature that is also stored in the embedded memory.

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6. (original) The audio accessory optimization system of claim 1, wherein the embedded memory uses a single wire bus data communications means.

7. (original) The audio accessory optimization system of claim 6, wherein the single wire bus data communications means comprises a 1-Wire<sup>®</sup> bus.

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8. (currently amended) An audio accessory optimization system, comprising:  
an audio accessory having content information stored therein, the content information for conveying information pertaining to the accessory's audio characteristics, the accessory for coupling to one of a plurality of radios wherein each of the plurality of radios detects the content information and optimizes the audio of the accessory in response thereto, wherein the content information includes at least one of: audio interface type, number of audio modes and signaling configuration, duplex capability, receive audio parameters, transmit audio parameters, and receiver to transmitter transducer coupling parameters.

9. cancel

10. (currently amended) The audio accessory optimization system of claim 8 9, wherein the receive audio parameters include at least one of: power amplifier mode, line mode, transducer load impedance, maximum output level, effective sound pressure level (SPL), and cone envelope parameters, ~~and~~ equalization filters.

11. cancel.

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12. (currently amended) The audio accessory optimization system of claim 10, wherein the transmit audio parameters includes at least one of: minimum microphone bias voltage, maximum microphone bias voltage, microphone electrical model parameters, microphone sensitivity, and microphone acoustic model; ~~equalization filters.~~

13. (original) The audio accessory optimization system of claim 12 wherein the microphone acoustic model includes at least one of: sensor type and response variation with distance.

14. cancel

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15. (currently amended) An audio accessory, comprising  
audio optimization parameters stored in the audio accessory; and  
the audio accessory for coupling to a variety of different radios, each radio having different audio characteristics, the audio accessory being automatically adjusted by each radio based on the audio parameters stored in the audio accessory, wherein the audio optimization parameters include at least one of: audio interface type, number of audio modes and signaling configuration, duplex capability, and receiver to transmitter transducer coupling parameters.

16. (original) The audio accessory of claim 15, wherein the audio accessory includes a memory device containing a plurality of descriptors that provide hierarchical information to enable radio optimization of the audio accessory audio performance.